

## **Remarks**

The present remarks are in response to the Office Action dated May 23, 2005, in which the Examiner rejected claims 1-45. The Applicant has amended claims 1, 3, 5-13, 15, 17-20, 31-34, added new claims 46-48, and cancelled claims 2, 4, 14, 16, 21-30, and 35-45. The Applicant respectfully responds to the Examiner's Detailed Action and requests the Examiner place all claims detailed in the application in a state of allowance.

### **A. Claim Amendments**

Support for a shared bus configured to provide a platform for quality of service and data flow monitoring of a combined plurality of voice, video, data, and control packets in a second packet format is found, *inter alia*, in the Applicant's patent application on page 11, line 9 to page 12 line 13. In regards to meeting quality of service and data flow monitoring demands, additional information can be found, *inter alia*, on page 24, lines 1-14,.

Support for a bi-directional signaling and control module in communication with a buffering module and a first re-packetization module that receives a first re-packetization output and generate a second output in a third packet format is found, *inter alia*, in the Applicant's patent application on page 21, line 1 to page 22, line 7.

**B. Rejection of Claims Under 35 USC § 102**

Claims 1-45 have been rejected by the Examiner under 35 USC § 102(b) as being anticipated by Hylton et al. In US Patent 5,613,191 (hereinafter referred to as "Hylton"). The Applicant disagrees; however, in order to expedite the prosecution of this patent application, Applicant has amended claims 1, 3, 5-13,15, 17-20,31-34, cancelled claims 2, 4, 14, 21-30, and 35-45 and added new claims 46-48 as described below.

The amended independent claim 1 is inconsistent with the teachings of Hylton because fails to teach, *inter alia*, a digital headend system comprising a plurality of smart network interface modules (smart NIMs) or a shared bus configured to transport a plurality of data content types in Ethernet format. Hylton also fails to teach a control computer configured to perform content management and resource allocation functions for content streams. Additionally, Hylton is inadequate in his teachings about an advanced digital downstream data module configured to receive the combined content data types and process them to transmission formats such as Quadrature Amplitude Modulation (QAM). Furthermore, Hylton fails to teach, *inter alia*, a bi-directional signaling and control module configured to receive and process the combined content data types to transmission formats such as Quadrature Phase Shift Keying (QPSK).

As described in Hylton's "preferred embodiment, the service is provided using an existing twisted wire pair subscriber line with Asymmetrical Digital Subscriber Line (ADSL) technology." (Hylton, Col. 4, Lines 53-56). The Applicant would like to provide the Examiner with the inherent functionality of an ADSL line in order to clarify the argument that Hylton was not directed at telephony or internet services. It is well known to those of ordinary skill in the art that ADSL connections are used to deliver high-rate digital data over existing ordinary phone-lines. A new modulation technology called Discrete Multitone (DMT) allows the transmission of high speed data. Additionally, ADSL facilitates the simultaneous use of normal telephone services, ISDN, and high speed data transmission, e.g., video. It is also well known to those of ordinary skill in the art that ADSL inherently enables telephony and data communications over the same channel and the "16 kbits/s control channel" is also inherent to ADSL as a synchronization channel for the established connection. Hylton clearly was not directed at communication of data other than video data, therefore, the Applicant respectfully submits that the Examiner's argument that "the limitation of video, voice and control packets is met by col. 4 lines 56-58" is moot.

The examiner's interpretation that receiving units such as the customer set top boxes (Digital Entertainment Terminals, DETs) and the communication network in between can be part of the headend system is incorrect. The set top boxes are not similar to DETs because they are the specialized equipment, nor are they required by the system for operation:

The digital video broadcast module expands the number of broadcast channels it offers and needs only the advanced digital down stream data module to be operational. This module is compatible with the plurality of digital set-top boxes. Page 5, Lines 4-6 in the Applicant's patent application

Regarding independent claim 11, Hylton is inconsistent with the teachings of the Applicant because, *inter alia*, Hylton fails to describe a plurality of voice, video, data, and internet packets that are combined by a first re-packetization module into a second packet format, a shared bus that provides a platform for data flow monitoring and quality of service functionality in the second packet format. Hylton also fails to teach a bi-directional signaling and control module that forms the voice, video, data, and internet packets into a third packet format that is manipulated by the synchronizing module into a synchronous output stream containing all the input data combined.

In reference to independent claim 31, Hylton fails to teach, *inter alia*, a method for communicating a plurality of data packet types comprising differing content types and formatting. More specifically, Hylton is inconsistent with the Applicant's teachings of receiving the data packet types in a first packet format, processing the data packet types into a second packet format on a shared bus that provides for the conductance of Quality of Service (QoS) and resource allocation monitoring. Hylton also fails to teach the forming of the data packet types into a third packet format for transmission. Additionally, Hylton fails to teach, *inter alia*, the plurality of data packet types comprising video data packets,

voice data packets, control data packets, and internet data packets, as described above in regards to the Examiner's citing of ADSL technologies.

The examiner's interpretation that receiving units such as the customer set top boxes (Digital Entertainment Terminals, DETs) and the communication network in between can be part of the headend system is incorrect. The set top boxes are not similar to DETs because they are not the specialized equipment DETs are, nor are they required by the system for operation:

The digital video broadcast module expands the number of broadcast channels it offers and needs only the advanced digital down stream data module to be operational. This module is compatible with the plurality of digital set-top boxes.  
Page 5, Lines 4-6 in the Applicant's patent application

The fact that the set top boxes are dissimilar from the DETs taught by Hylton makes the comparison of the two systems moot. More specifically, the DETs are requirements for system operability as described by Hylton and the set top boxes are simply alternative embodiments and not requirements for system operability.

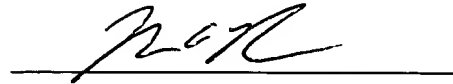
Since the independent claims 1 and 11 overcome the 45 USC 102 rejection, the Applicant respectfully requests that each of the dependent claims 3, 5-10, and 12-13, 15, 7-20 respectfully, overcome the anticipation rejection. Additionally, since independent claim 31 overcomes the 35 USC 102 rejection, the Applicant also requests that the dependent claims 32-34 and 46-48 overcome the anticipation rejection.

**C. Conclusion**

For all the forgoing reasons, allowance of claims 1, 3-13, 15, 17-20, 31-34, and 46-48 is respectfully requested.

Respectfully Submitted;

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